

Collaborate to innovate

How the InSPIRE Center at UCLan Cyprus brings together academics and industry

The Center of Interdisciplinary Science Promotion & Innovation Research Exploration (InSPIRE) at UCLan Cyprus aims to enhance scientific research through a series of collaborative partnerships in diverse scientific disciplines between academia and industry, carrying this out through a series of projects, educational activities and community engagement. InSPIRE's co-founder, Dr Panayiotis Andreou, believes it is essential that the two sides work together if they want to stay at the cutting-edge of research, and that all parties benefit from such relationships.

Dr Panayiotis Andreou has always been fascinated by how a collaborative approach by academics and industry leaders could be better applied to result in the mutual benefit of both parties. Any industry organisation could benefit from graduates who had genuine and valuable work experience, as well as an understanding of how commercial research works. And academics could benefit from industry partnerships that would better help them understand the real societal impact of their research, or point them in the direction of the most valuable lines of inquiry.

But how could he bring the two together? In 2015 he co-founded the Center of Interdisciplinary Science Promotion & Innovation Research Exploration (InSPIRE) to do just that. In an interview with Dr Andreou, *Research Outreach* found out more.

What are the main goals and strategies of the Center of Interdisciplinary Science Promotion & Innovation Research Exploration (InSPIRE)?

The InSPIRE Center was founded in 2015 by academics and industry associates with the mission to support the advancement and development of scientific research by establishing a culture of innovative partnerships between academia and industry in order

to enable the utilisation of state-of-the-art practices and facilitate cutting-edge responsible research and innovative activities, with an emphasis on the areas of Science, Technology, Engineering and Mathematics (STEM). To achieve the Center's vision, its resident members work closely with internationally respected and distinguished researchers, academics, industry professionals and policy makers to foster knowledge transfer, enrich student learning experiences and academic environments, and cultivate citizens through community service/outreach.

To this end, the Center focuses on activities related to high impact research and innovation, mentorship and enhancement of students' knowledge and practical skills, through the development of collaborative research and industry projects, promotion of STEM education, awareness on the impact of STEM research and teaching and the organisation of research seminars, workshops and professional training for the community. InSPIRE members are internationally recognised for research and innovation and they are currently participating in different externally funded projects, including EU H2020, Erasmus+ and Cyprus Research Promotion Foundation (RPF) funded projects. In the past, they have successfully participated in other EU-



Dr Panayiotis Andreou is co-founder of the InSPIRE Center.

funded projects (e.g. the EU Framework Programmes, Engineering and Physical Sciences Research Council, eTEN programme, INFSo-ICT and Active & Assisted Living programme).

Could you tell us a little bit about your background? How did you come to be involved with the Center?

In addition to being a founding member and co-director of InSPIRE, I am currently an Assistant Professor in

InSPIRE embraces an open innovation approach where staff, students and partners are encouraged to engage in interdisciplinary research and innovation.

Computing and the Course Leader of the MSc Data Analytics at the School of Sciences at UCLan Cyprus. I received my PhD from the University of Cyprus in 2011, and in 2012 I spent one year as a Marie-Curie post-doctoral researcher at the Portuguese company IDMind in Lisbon. My main research interests include data management and analytics in networks and systems, adaptive computing, e-health and ambient assisted living. I was always fascinated by research, pursuing new knowledge and new ways to apply it. At the same time, from my early years, I had a strong interest in the private sector and

I acquired extensive experience in the design, development and deployment of software systems in the context of research and industry projects.

Being passionate about both worlds, research and industry, enabled me to find ways to gracefully blend them together in an impactful way. I became an academic in 2014 and through my work, I ensured that my course curriculum was research and industry informed and that my students had opportunities to engage with industry professionals in their fields. It did not take long to realise that I could not

completely fulfill my vision within the set curriculum and provide my students with the knowledge and skills I considered necessary to succeed in a competitive and diverse global work environment. The development of transferable skills can only be enhanced beyond the curriculum and through extra-curricular activities. This, combined with my zeal to work on projects that will have a significant impact on the scientific and industry communities and mentor students and young researchers through such projects, gave birth to the idea of InSPIRE, which, with the support of the Center's co-founder, Prof Irene



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Research seminars, workshops and professional training ensure knowledge transfer to the wider community.



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The Center offers its services and expertise to its industry partners through the undertaking of small- or large-scale industry projects that the partners are in need of.

Polycarpou, the support of other colleagues who shared the same vision, and more importantly, the support of UCLan Cyprus, became a reality and it keeps growing every year.

How do you facilitate collaboration between academic disciplines?

InSPIRE embraces an open innovation approach where staff, students and partners are encouraged to engage in interdisciplinary research and innovation and enterprise activities. Particular emphasis is put on promoting impact-informed research by cultivating an understanding of the benefits of innovation and enterprise activities for research and vice versa (e.g. impact on companies and society, increase rank of publications, income generation, global recognition). Furthermore, InSPIRE seeks consultation about the potential of new ideas through its network of collaborators.

What kind of support services do students, researchers and the community receive from you?

InSPIRE accepts interns, including undergraduate/postgraduate students, recent graduates, early-stage practitioners and junior researchers, with the purpose of enriching their skills and broadening their practical work experience to bestow them with a significant advantage in their future employability. This is

implemented through collaborations with the Center's industry and academic partners to provide interns with real world practical experience through small-scale research and industry projects for which agile multi-cultural teams are formed. The teams work under the supervision of a collaborative group of coaches and mentors from both academia and industry for the fulfilment of the project requirements.

Moreover, InSPIRE works very closely with the community to foster knowledge transfer through community service and outreach. InSPIRE members provide research seminars, workshops and professional training for community members depending on their specific needs, as well as organising public lectures and round tables to inform local community groups about pressing matters of the society and start an open dialogue. The Center is also pursuing activities for the promotion of STEM subjects among young people, such as the mentoring of high school students and the organisation of STEM-related events and competitions targeting a wide range of ages, from kindergarten to high school.

What's an interesting project that you would like to tell us about?

Although I find all the projects of InSPIRE very interesting and unique, I consider

one of our latest projects, IDEALVis (<http://idealvis.inspirecenter.org/>), to be the most innovative. IDEALVis not only brings many diverse disciplines together, but it also uses research to enhance industry environments and decision-making. To me this is a perfect example of how research and industry expertise can be combined together to provide state-of-the-art results. The goal of IDEALVis is to enable human-centred adaptive data visualisations that will facilitate more efficient and effective data exploration and analysis of complex and multivariate business datasets in order to enable more effective decision

InSPIRE aims to promote STEM subjects among young people by mentoring high school students and organising competitions.



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making on critical business tasks. This project is funded by the Cyprus Research Promotion Foundation (RPF) and it is led by InSPIRE in collaboration with RAI Consultants Ltd, currently the largest market research agency operating in Cyprus and one of the leading agencies in the field of opinion polls, and KMPG, a global network of professional services firms providing audit, tax and advisory services. The InSPIRE team of researchers who work on this project have expertise in data management and analytics, neuroscience, cognitive psychology, human-computer interaction, statistics, cybersecurity, distributed systems and media production.

How do you cooperate with industry?

Industry engagement and collaboration is at the core of InSPIRE's vision, and thus we strive to cultivate a unique culture of partnerships with industry

in order to facilitate and promote the utilisation of state-of-the-art practices. We are very passionate about establishing new collaborative partnerships with depth and breadth and strengthening existing ones to foster innovation and entrepreneurship by transforming our research knowledge into innovative products and services that can generate impact through multiple channels. InSPIRE offers its services and expertise to its industry partners through the undertaking of small- or large-scale industry projects that the partners are in need of. Given InSPIRE's mission, such projects are not focusing on profit, but rather on the engagement of interns who work on the projects under the supervision of experienced InSPIRE members and industry partners. As a result, the project cost for the industry partner is lower without sacrificing the quality of the end product or service. This provides

a distinctive opportunity that mutually benefits both parties.

Furthermore, industry partners do not usually have the resources or expertise to enhance their products and services through the exploitation of latest research findings or to develop new research initiatives. Therefore, InSPIRE can bring this knowledge and expertise to them, primarily in the form of externally funded research projects. Additionally, InSPIRE members offer tailored, specialised trainings to the employees of the industry partners, which address the partners' specific needs.

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